## **Patent Abstracts of Japan**

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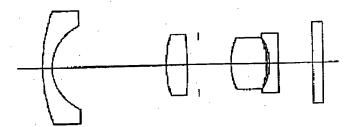
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INT.CL.

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TITLE

WIDE-ANGLE LENS



ABSTRACT :

PURPOSE: To obtain an inexpensive and small wide-angle lens for a monitoring camera with a sufficiently practical aperture of an F number 2 other than the use in a particularly dark environment, while having a few lens component, a sufficiently long back focal length and a fully wide-angle with a viewing angle of nearly 90°.

CONSTITUTION: This lens is composed of four lens components in which a negative meniscus lens with a convex face on the object side, a biconvex single lens, a biconvex single lens and a negative lens with an intensive refracting surface on the object side are successively arranged from an object side and satisfies respective conditions below;  $2.1 < (d_2 + d_3)/f < 3.3$ ,  $-2.1 < f_1/f < -1.6$ ,  $1.65 < n_1$ . Where  $d_2$  is spacing between the first lens and the second lens,  $d_3$  is thickness of the second lens,  $f_1$  is focal length of the first lens, f is composite focal length,  $n_1$  is refractive index of the first lens.

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